AGRICULTURAL DEPARTMENT.

J. P. STELLE, EDITOR.

PUBLISHER'S NOTICE-All communications intended for this denartment should be addressed to Prof. J. P. Stelle, Fort Worth.

ON BANKING SWEET POTATOES. Last week a correspondent asked for an article setting forth how they "bank" and keep their sweet potatoes in the gulf coast country east of the Mississippi river. Replying, we promised this article, and gave it as our opinion that sweet potatoes might be kept through winter by the banking method as well in Texas as in the region named, particularly on our sandy lands.

In those pine regions of Mississippi, Alabama. Georgia and Florida the sweet potato raiser allows his crop to remain in the ground to as late a date as he can safely risk it against having them frozen by a blizzard. He cares nothing for a light frost, indeed not a few prefer having the vines blackened by a frost previous to digging the crop. The notion is that a frost on the vines checks all growth and tends to a rapid maturity of the tubers, this rendering them less sappy and better qualified to keep than they would be if taken up while the vines were still in active growth.

We have heard it argued that in case of frost-bidden vines the effects of the frost would descend to the tubers and impair their quality more or less, but this is a mistake. Sap never runs downward in a plant. We have always been a very successful sweet potato raiser, and while operating on the gulf coast we invariably made it our rule to leave the tubers in the ground about one week after the vines had been killed by frost, provided, of course, that there was no apparent prospect of coming severe weather before the end of that time. And now for directions should you desire to harvest and bank your potatoes after the plan pursued by the successful sweet potate raiser in the sea coast country east of the Mississippi river:

Begin by "dragging off the vines," This work is usually accomplished by running a light plow between the rows-some use a turn plow, others a shovel plower scooter. The vines gather around the plow and soon convert it into a mere drag, pulling the vines from the rows as it passes along.

Having the vines removed, run a turn plow well down in the middle between the rows. Many fair-sized potatoes are often found in the middles, so have your pickers follow the plow, taking up the potatoes and depositing them along in heaps where they will be out of the way of subsequent operations. Run your plow on each side of this furrow, throwing the dirt into it the same as if ridging up for a new crop, the pickers still following along the furrows. When the row proper is reached, bar it off along the side, then change to the next middle. Proceed as in the first instance, and when the row is reached on the other side and barred off, split it out with two or three furrows (or as many as needed to bring up all the potatoes), and so keep on until the patch is gone over, and the potatoes are lying in heaps on the plowed ground.

Great care should be exercised in handling the potatoes not to bruise them. They should not be pitched far to the heaps, striking upon the potatoes already there, for this would be sure to bruise them slightly, at least. The hears should be near each other, and the potatoes simply dropped upon the pile or around it. One of the greatest troubles in keeping sweet potatoes is found in what is called "dry rot." This dry rot is invariably the result of a bruise in handling. If the potatoes are handled without any bruise whatever there will be no dry rot.

If the potatoes can be left in the heap a few hours to dry out before collecting them for the banks it will be all the better for

Select a dry and well-drained situation for your banks. Scrape off the surface soil where your bank is to be made, down to the depth of three or four inches, raking it into a ridge around like you were forming a miniature circus ring. This bed for the bank should be about eight feet in diameter, and when completed will be cupping to the middle somewhat like a saucer. Bring good dry straw, or grass of some kind, and fill the depression level full to the out-edge of the ring, piling straw enough upon the ring to have the straw-deposit still maintaining the saucer shape. In the middle of the bed drive a small stake down into the soil sufficient to stand firmly and long enough to have its top about four feet above the straw.

Now begin to pile your potatoes around this stake, carefully, so as not to bruise them. Run the pile up in as sharp a cone as you can make them maintain. Keep adding round and round until they have reached to the outer edges of the circular bed and are up to the top of the stake. You can put about twenty bushels in such a pile, which is enough for one bank. Next put about two inches of straw over the pile and follow with a dozen or so of narrow strips of board or other suitable sticks, letting one end rest against the surrounding ring of earth and straw and the other end on the top of the stake coming up from the center, or upon the strips or sticks first laid down, above the top end of the stake. Place over these strips six inches depth of straw, covering the entire heap from bot-

Let the pile so stand about twenty-four hours, if there is no danger of freeze, then begin around the base of the heap and place on dirt, going round and round with a spade, until the heap is covered deep enough to protect the potatoes from any freeze that might happen to come. Leave a space of five or six inches at the immediate top of the cone without dirt covering, stuffing it full of straw as the dirt rises above it. Pat the dirt firmly on all sides of the cone with the back of your spade, and your potato bank is finished.

In diaging up the dirt around your potate plie you made a depression deeper than a level with the bottom of the bed. Cut a ditch out from this so that no water can stand there when it rains. Construct some kind of cheap shed over the bank to break off dashing rains and your work is done. In the coast country where old dead pine trees are abundant it is common to collect the dead pine bark, which peels off easily, and place it around the pile, concave next the dirt to serve as a shelter. A bit of bark is laid over the top of the hill to prevent water from running in through the strawfilled opening already mentioned. The

opening is left to fill the office of ventilator for the potatoes in the bank.

Should you desire to keep the potatoes longer than the opening up of warm weather next spring, you add more dirt to the heap as the warm weather comes on to hold the potatoes cool and prevent sprouting. We have kept sweet potatoes entirely sound and good for ten months on this plan.

In the coast country under consideration they use dry pine straw (pine needles), in making their banks, but any kind of good dry straw or crass would answer the pur pose equally as well as pine straw. The strips of board laid on are to prevent the covering from pressing heavily upon the potatoes, a thing that might bruise many of

ENEMIES OF THE PECAN TREE

But three insect enemies to the pecar ree are reported by entomologists as yet, and after a careful search for them, begun in 1880, we have been able to find but one of the three in Texas. The others may be here, but if so they have escaped our atten-

The insect injurious to the pecan tree, that we have seen in Texas, is commonly known as the fall web-worm-scientific name Hy phantria cunea It is a small caterpillar, that spins an unsightly web in the foliage of the tree, which, if undisturbed, increases in size throughout the season, looking ugly and damaging the tree to some extent by destroying many of its leaves. Fortunately it is not at all hard to manage. The arsenite insecticides, such as Paris green. London purple, or a diluted solution of ar senic, as recommended by us in former articles for the cotton worm, will promptly put an end to its operations, and do no harm to the tree. Another simple and sure remedy is to burn the webs so soon as they appear, with a ball of cotton or rags tied to the end of a pole and saturated with kerosene. Hold the flaming ball under the web just a moment-a single flash is sufficient. This will destroy the worms and not hurt the young twigs of the tree. A web simply twisted out with a pole may be rebuilt, but no effort is ever made to rebuild a burned-out web.

This caterpillar is the larva of a small moth or miller, of a whitish color, spotted more or less with black or brown. The eggs of the moth are laid on the leaves early in spring, and a week or so later the worms are hatched to work well through the seaon, unless destroyed as suggested. The harm effected is by no means serious, as the twigs of the tree upon which the webs hang seldom die, but put out again all right in the next spring. Of course it is something against the tree to have its leaves destroved, therefore the webs and worms should be promptly deserved.

Another insect occasionally found by us working upon both the pecan and the hickory, east of the Mississippi river, is a small borer that cuts through the bark of the main trunk and digs a tunnel direct into the wood, ranging upward. It is about onehalf of an inch in length, and looks a little like the borer found in peach trees, though its head is not quite so broad and flat. Of course it is a larva-its parent is a black beetle, spotted and marked more or less with bright yellow. Length, about threefourths of an inch; long "feelers" come out from either side of the head, turning back less. Scientific name. Cyllene picta.

This beetle deposits eggs upon the outerbark of the tree early in spring, and a week or so thereafter finds the young borers hatched and cutting inward, as already mentioned. By fall all transformations of the insect have been passed, leaving the perfect beetles to hibernate through the winter and be ready for starting a new brood on the opening of the next spring.

The remedy for this pest would be to give the trunks of the trees a good spraying with our diluted solution of arsenic carly in spring. This would effectually destroy the young borers ere they had more than started into the bark, for they eat their way n and hence could not avoid getting a dose

As already stated, this borer has never yet been found by us in Texas, and the almost invariable healthy and luxuriant appearance of our wild pecan trees leads us to think it is not here. A hickory or pecan tree infested by this borer to any great extent always looks sickly. But should it be here, or should it make its appearance later, the means of cutting it short are, as you see, both simple and inexpensive. One thousand large pecan trees could be protected against it at less than 50 cents annually for the poison.

The third insect to which our attention has been called as working upon the pecan tree in other states, but which we have never yet seen in Texas, is a twig girdler known to entomologists as Oncideres cingulatus. It is a gravish brown beetle about three-fourths of an inch in length, armed with long "feelers" somewhat like those of the beetles that make most of the tree borers, though the "feelers" extend more to front than do the "feelers" (antennæ) of the borer beetles. It has a snout or bill which turns squarely downward at right angles with its body, and now for what it

This mischievous little beetle flies up into the pecan, the hickory or the persimmon trees (and possibly into trees of other families), and selecting a twig proceeds to pierce it and deposit eggs therein. Those eggs hatch little grubs which work along the pith of the twigs, but it is necessary for them to come out and go into the ground before they can pass through their transformations and become perfect beetles like the parent. But the parent has made provisions to favor all this. After depositing her eggs in the twig she descends a few inches, and with her bill already mentioned begins girdling it round and round. She works only at night, and it takes several nights for her to complete the job in hands. When completed the twig is girdled round until almost cut off, just wood enough being left to enable it to hang on till towards fall. By fall the grubs are ready to go into the ground, and then the fall winds come and break off the twig at the girdle. It drops to the earth and the grubs come out, dig into the soil and undergo their transforma-

tions. The only damage this insect does to the

tree is to prune it, and sometimes it prunes where we would rather that no pruning had been done. Fortunately it never appears in very large representation; if it did we would have to grin and bear it, for as yet science has settled upon no remedy for the pest. We have always found it worse on the common persimmon (Diospyros virginiana), than on either the hickory or the pecan. The probability is that it will never trouble the pecan grower to any extent vorthy of serious consideration.

The pecan has no diseases that we know of. On several occasions we have heard of "twig blight" on the pecan, and more than once we have traveled a considerable distance to investigate it. Invariably we have found it springing from the same cause: Swampy or soggy land. While occasional overflows of streams do not at all injure the pecan, but rather help it, lands permanently swampy or soggy are against it. The trouble shows first on the slender twigs, and then we hear of pecan blight. It is scarcely necessary for us to suggest that immediate and thorough drainage would be the remedy in all such cases. Cut deep ditches to the grove leading off the water standing in the soil and subsoil and the trees will promptly recover.

We will state in conclusion that of all the American trees known to us none approach so near entire exemption from disease and from serious insect ravages as does the

OUR CORRESPONDENTS.

This department is devoted to answering such questions as may be asked by our subscribers, which may be of general information inquiries of personal character that require answer by mail should always have stamp inclosed. Please give full name and postoffice didress in addition to any such signature as "Subscriber," or "A. G. D." not for publication, if against the will of the writer, but to admit of lirect communication should such a thing be deemed necessary. Address as directed at head of this page.

THE GAZETTE AND THE PECAN. Your articles on pecan culture for Texas have brought about a new awakening, and have started everybody here to talking about the pecan. All the talk is in one di-rection, to-wit: The pecan is among the greatest of the many great things that na-ture has given us. No other state could compete with Texas in pecan culture, for Texas, as you have often stated, is undoubtstly the natural home of the pecan. I am entirely with you in your suggestion that the first pecan tree grew in Texas. It has, by battling against less favorable condions, finally spread itself to a few other re gions, but the further it gets away from Texas the lower becomes its grade in point of perfection. The most perfect pecans of the world, in a natural state, are found in

The interest that you have aroused in the pecan emboldens me to say that the Fort Worth Gazette will, during this coming winter, have founded to itself thousands upon thousands of living monuments to stand and represent the publication long after all the people now living shall have been gathered to their fathers. These monuments may bear no inscription telling to whom they have been erected, but the facts in the case will remain all the same. ven though unproclaimed.

Naturally, Texas is the great pecan state -artificially she is to remain the great pecan state. In my honest opinion there

an be no doubt about that,
Since you began working up the pecan through the Fort Worth GAZETTE I find great changes in pecan literature, as com-pared to that formerly spread before the people. Lots of ideas evidently original with The GAZETTE are creeping into all the pecan literature now getting into print. One of these, of especial importance, was that the pecan could be planted along our that the pecal could be planted along our streams where the land was exposed to occasional overflow, and hence was unsafe for any other crop. All these lands, as you state, can be put into pecan groves, and thus rendered more valuable than any other lands we have, the occasional overflow being more of advantage to the trees than ng more of advantage to the trees than

otherwise.

Another important idea was that it was not necessary to clear up those bottoms be-fore starting the grove. All needed was to measure of the rows, dig out the hills, cut away overhanging growths and plant the planting of thousands of acres to pecans the coming winter that would not have been danted but for the Fort Worth GAZETTE. Both of these important ideas now ap-pear in all our recent pecan literature, but the first I ever saw of them appeared in the Fort Worth Gazerre about one year

Me are beginning to look upon the Fort Worth GAZETTE as our boss pecan authority, and on that account I write you this letter. So far you have shown us the pecan in a light entirely favorable, but there are almost invariably two sides to every question. Is there really nothing against pecan culture in Texas? I am planning to put out a large grove this winter—am al-ready securing the best nuts I can find in three counties with a view to that kind of performance. Now, I would like, under the circumstances, to hear something of the dark side (if there is one) before I go too far, and doubtless very many reagers of Tur Gazerre are in the same fix as myself Has the pecan no insect enemies that might knock it into a cocked hat at about the time when we had gone to all the expense ecessary for establishing a pecan grove? Up to this time you have advanced not a word with reference to insect enemies of the pecan. It don't seem possible that a thing of so much importance to Texas could have only a bright side. Please answer through The Gazette and much oblige a well-pleased reader of the agricultural

J. R. CLATTON.

Dimmit county, Texas. After thanking our correspondent for his kindly expressed appreciation of what THE GAZETTE has been doing, we would refer him to the second article appearing on this page as having been written in response to his request and suggestions.

ANOTHER PECAN LETTER.

If you remember I last year promised to send you a sample of my paper-shell pecans this fall. A sample of nine nuts is sent by this mall, which please acknowledge. Would like to have sent more: that is what I would call a respectable sized sam-ple, but the fact is the demand on me for the nuts is se far above the supply that I have been forced to put up with sending you a few. I have but one tree bearing as yet. It stands right where the waters of the Colorado and the — river come togeth and the — river come together. If you notice you will see black and red mark-ings on the nuts, which, I think, is due to the different color of the soils where the tree grows, the soil carried down by one stream being black while that carried down

by the other stream is red. This tree is a most elegant one, and is as distinctive from other pecan trees as are the nuts from those of other trees. Already I have a fine lot of young trees grafted from this particular tree, all doing

No effort whatever has been made at booming my peculiar variety of the peca yet a knowledge of it has somehow sprea among the people to such an extent that I have orders for all the nuts for several years shead at \$1 per pound. If you eve happen in this way please call on me and afford me the pleasure of showing you a tree, the sight of which would make heart glad, I think; and I further think you would much enjoy a look at my grafted pecan trees.

I would request that you do not publish have more letters to answer about my pecans than I can well afford to attend to about half of them inclosing no stamp return postage. I have no pecans of fine variety for sale at present.

Central Texas. It will be seen that we have rather vio

lated rules in publishing a letter not in tended for publication, but there was in the letter and its accompaniment, so much of special interest to the general public of Texas that we could not well help pursuing this course. We have endeavoyed to make amends, however, by withholding both the name and address of our correspondent, and by leaving nothing in his letter that would enable anyone to locate him, and thus annoy him with correspondence, something upon which he seems to base his objections to being made known through the

paper. The pecans sent are really the finest we have yet seen in Texas. While large, it may be stated that we have seen larger pecans, but taking all their qualities into consideration we must pronounce upon these as the best seen by us, so far. The shells are extremely thin and packed as full of kernel as an egg is full of meat. The usual shell-divisions in the kernel are almost wholly wanting. And there is in the kernel a flavor peculiarly rich and agreeable-the finest, we must conclude, that we have yet tasted in any nut.

As we understand it, the tree referred to by our correspondent is one of natural growth. It is simply a favorable freak in the pecans, like the scuffernong grape is a favorable freak in the vitis vulpina or muscadine grape. We have often thought of such freaks in the pecan as entirely possible-why not in a nut tree of the forest as well as in a grave vine of the forest! And now that such freak has been found the matter is of special interest to the public as a stimulus to others to look for other pecan freaks.

We think the pecan abounds in such freaks. The natural pecan is doubtless a tree-bearing thick-shell nut, for the pecan is simply a hickory. All the thin-shell nutbearers are probably freaks. It would seem so from the fact that there are no thin-shell species, and the tendency of the thin-shell varieties whose nuts are planted, seems strongly inclined to run to thicker-shell varieties. One naturally concludes that this is the result of crossing on the thick-shell varieties, but after consider ing the matter from every stand-point, we can no longer contend that the result is invariably due to this cause.

Scour the woods, then, in search of the very fine pecans. A single freak showing extraordinary excellence might prove as good as a gold mine to its finder and owner. In his letter our correspondent opens up an idea that well backs us up in an existing possibility of valuable results to result from a valuable find among the wild pecans. He speaks of his young grafted trees. If it is possible to graft the pecan easily and with entire success the find may be perpetuated and extended to any degree required.

We know that the pecan can be grafted. but heretofore it has been considered that, as in case of all the hickories, the thing is not easy of accomplishment. If this last has been found to be otherwise, and the grafted trees unite to the stocks and establish themselves as well as do the seedlings, then a new era in pecan culture is just breaking in upon us. No man putting out a pecan grove will longer have any risk to run with reference to the character of nuts every tree will bear. It will bring pecan culture up to a high level and supply the world, eventually, with not only the best pecans ever met with, but also with the very best nuts known to man.

If our correspondent is not entirely too modest to risk such a thing, he could do us and the readers of THE GAZETTE a great favor by telling how he grafts the pecan, and all there is about it.

We might state in conclusion that it is not our opinion that the different colors of the soil, mentioned by our correspondent, and any influence whatever on the neculiar colorings appearing on the nuts sent. Those colorings are simply a peculiarity of his variety, and will ever appear where his variety comes true, without regard to character of the soil in which the trees are

THE PEANUT IN TEXAS.

Your article in THE GAZETTE mentioning roused no small degree of interest in this section. I have long thought that the per profitable crop for us. There is one point not mentioned in your article that we would much like to be informed on. You did not give us the probable yield to the acre as shown by Mr. Robbins' experiment. Give us all the facts at your command on peanut culture, from time to time, as they appear before you, and doubtless THE GAZETTE will soon be able to congratulate itself upon hav ing worked e en one more great good for the agriculture of Texas in the way of bringing her into recognition as the champion peanut-producing state of the Union. Tell us something of what an acre to peanuts, properly managed, might be expected to do for the Texas farmer. Weatherford, Tex.

After receiving your letter we called on Mr. J. M. Robbins for the purpose of interviewing him relative to the point untouched in our former article. He informed us that by bringing his peanuts to a regular stand, as they would have had by correct attention, it might be stated that be had in about one-fourth of an acre. Already he had picked off a considerable proportion of his crop-enough to convince him that he would get at least thirty bushels of merchantable nuts from that quarter acre. Four thirties, as you will understand, are 120. So, as it appears, Mr. Robbins' experiment has panned out at the rate of 120 bushels of nuts to the acre.

The next thing was to find out what pea nuts were worth on our market, so that thing took us near a mile to the Fort Worth Grocer company, the concern from which most of our retailers of peanuts obtain their supplies. That concern told us that, while they could not put the figures down to actual cents, they concluded that the producer might safely depend upon nothing less than \$1.50 per bushel for good goods. In all probability it would never be below those figures, though there was a chance that it would often be considerably above.

One hundred and twenty bushels of peanuts at \$1.50 a bushel would be \$180 to the acre, at a cost for culture, etc., decidedly less than that of an acre to cotton. How is that for high?

But we don't stop at this. Mr. Robbins old us that he was feeding his peanut vines to his horse, and that his horse would quit it is probable that the male is the one that corn or anything else in the manger for them. They seemed to be relished more than anything else he could offer the animal, and, therefore, on account of the great abundance of the vines, he fully believed that it would well pay the Texas farmer to raise peanuts for the fodder alone, supposing that the selling value of the nuts was not at all taken into consideration.

WANTS A BETTER POTATO. I read the agricultural department of the Fort Worth GAZETTE with a great deal of interest, and on this account feel that like the rest of them I merit a little informa-

The nancemond, as you doubtless well know, is a favorite sweet potato at the North, but I find that it does not succeed well in Texas. I therefore wish to ask you it there is any other bright yellow yam which, say when half grown, would resemble the nancemond and be early? Please reply through THE GAZETTE and much oblige, with others, with others, Sunset, Tex.

Few things could be more difficult than the identification of a sweet potato, as to variety, by the local name given, owing to the fact that there is no established and accepted nomenclature for the varieties. This thing is one decidedly unfortunate. and on several occasions we have urged upon sweet potato growers to hold a convention for the purpose of establishing regular names. A crop of so much importance as is the sweet potato to the South is certainly deserving of some such movement. In the present loose arrangement of af-

fairs with reference to the sweet potato we can have no positive idea of what variety you are meaning when you speak of the nancemond About Fort Worth there is raised a long-shaped yellow potato with rough skin that goes upon the market as the nancemond. Along the eastern gulf coast the same variety is sparingly raised under the name of Spanish potato, while the nancemond of that region is a potato about the same shape and size, with smooth skin and not quite so yellow. This same nancemond of the coast east of us is the Southern Queen of the potato growers in the neighborhood of St. Louis, while the Southern Oueen of Virginia is a large. g.obular, white, sappy and very early variety called "chokes" and "poplar roots' along the eastern gulf coast.

In this portion of Texas we have a largergrowing and later potato, called the "Texas yam:" that potato along the eastern gulf coast regions goes by the name of white Hayti in some localities, and Dooley yam in others. The red potato of this section of Texas called the red yam is the musgrove of the states east of us, generally, though the people of a few localities, as at Mobile, Ala., for instance, call it the red Hayti The most popular potato along the eastern gulf coast is called either the old yellow yam or the Carolina yam; the same potato, though not much raised, is here called the East Texas yam. A dark red, long-shaped white-fleshed, dry, mealy, and very prolifi potato sparingly raised about Fort Worth is called the Missouri red; the same varimy is extensively raised in Mississippi. Alabama, Georgia and the Carolinas, under the name of "nigger killer." So, you see, we are unable to talk intelligently to you about your nancemonds.

If your nancemond is the rough-skinned potato carrying that name at Fort Worth, then we can say to you that there are several better varieties that might be made to fill its place. The nancemond of the Eastern coast is a much better potato. It is not quite so early or quite so yellow as the Fort Worth nancemond, but it is far more attractive in appearance, does well and may be handled to advantage on the local market when not more than half grown. No other variety is so popular about St. Louis, where, as already stated, it goes by the name of Southern Queen.

This rough-skinned nancemond - the Spanish potato of other regions-tends to run out rapidly. Twenty years ago it had quite a boom in South Alabama, and when first introduced it was really a very fair potato, but in a few years it had deteriorated and grown unprofitable, hence it is now seldom seen there,

We would like to hear from our readers relative to what they know of the best sweet potato for Texas.

THAT DEVIL'S RIDING-HORSE

I am a subscriber to the Fort Worth Gazerre, and must be permitted to say that I m highly pleased with the agricultural de partment, and especially so with its inter-esting answers to correspondents. That sub-department gives one a great deal of very useful information and not a small deree of amusement.

Doubtless the guinea pig is a rodent and

the Florida gopher a turtle, but I fear that the Florida "devil's riding-horse" is not our well-known friend the skunk.

The Arkansas "devil's riding-horse" is also not a harmless insect, as my own exp ience teaches me. If disturbed it will will throw a poisonous substance towards he disturber, and should this happen to get into the eye it does burn worse than fire or Spanish pepper. We have the Mantis religosa or praying mantis here, which is con deered harmless, but of the other (Mantis urolina) we fight shy.
We have two kinds of devils' riding-

orses here (unless the two should be simply male and female, an idea strength-med by the fact that they are often seen together;) one is very fat and fleshy, and is vulgarly called the devil's riding-mule; the other is very lean and is vulgarly called the devil's riding-horse.

A few years ago our woods were full of these insects, and the hogs devoured great quantities of them and many porkers died from the effects of the poison. FRANCIS HOLSTEIN. DeRoche, Hot Springs county, Ark.

Mirable dictu! whatever that means

Hold on, Florida man, and don't send us my of your devil's riding-horses unless ou have already started them on the way. Send them to Professor Riley, the United States entomologist at Washington, D. C., or to any other man that we do not care so much for as we do for ourself, provided they, like the Arkansas devil's ridinghorse, are as hot as fire or Spanish pepper. But if this reaches you too late, the shipment having already been made, we shall have to take our chances, of course. And what is still worse, we will be unable to blame any one save ourself for our very unfortunate rashness. We tremble while we write these few lines, etc., still there is one thing we cannot understand well enough to prevent it from giving us a little nope, to-wit: Our well-informed correspondent gives us two scientific names Mantis religiosa and Mantis carolina), and ince Mantis religiosa is simply the old and liscarded name for Mantis carolina, there are left for us some grounds for the hope that there may be some kind of mistake in the case, after all. We do not hesitate to knock our fists together and declare that we are man enough for any mantis correctly bearing either of those names. Our correspondent seems to think that

the two insects referred to may be simply male and female of the same species. That also cheers us, for should such be the case ejects the poison which, when getting into the eye, burns worse than fire or Spanish pepper, and that all of this is due to the fact that the males, like many males in another branch of our earth's fauna, are addicted to the use of tobacco. While tobacco juice expectorated into the eye might not be exactly as bad as fire or Spanish pepper, the fellow who get a done of it in that way would be

ant to think, just at the time, that it was burning bad enough for anything.

THE SPANISH CHUFA.

Will you be so good as to let me know through The GAZETTE how many pounds a bushel of Spanish chufas weighs, and how much land might be correctly planted with a bushel of good seed? When is the best time to plant! I read THE GAZETTE regularly and am much pleased with it as a family and farmer's paper.

C. S. ONDERDONE,

Waco, Tex.

In her scale of weights and measures the state of Georgia has put dried chufas at forty-four pounds to the bushel. A bushel of good chufas will plant about five acres. They are planted in rows three and a half feet apart and eighteen inches apart in the row, a single tuber to the hill. 'About the last week in March would be a good time to plant in your latitude, though the crop might do well enough planted several weeks

WHAT MINERAL IS IT?

I have inclosed in a small tin box and forwarded to your address by mail a few fragments of quartz rock from the outcroppings of a ledge. The most of them, as you will see, are conted with a mineral substance very much resembling gold; but it is not gold, neither is it what is commonly "fool's gold." Please let me know what it is, or what it indicates. Do you regard the quartz as probably some mineral-bearing rock, and that this subtance upon it is the "blossom" of some mineral? The stratum from which the specimens were taken lies nearly vertical. It is about twenty inches wide, runs east and west, and is bounded on either side by clay "gouge,"

Hoping I am not trespassing too much on

your time, and thanking you in advance, I am Francis Holstein. De Roche, Hot Springs county, Ark.

Your rock is an imperfect chert, and not a quart at all. The largest specimen, of a light color, has the peculiarities of buhr stone. The yellow matter interesting you, as appearing on the specimens, is limonity iron-the yellow other of the paint shops. Nothing beyond what you see on the surface is indicated.

A DEAD MAN'S PORTRAIT.

THE STORY TOLD TO A GAZETTE REPORTER.

A Portrait of a Likeness Painted Fron Memory Proves Faithful in Every Particular-A Strange Tale.

Samuel Miller of Lynchburg, Va., a several times millionaire, on his death gave early all of his estate to build and endow ourg. Vn. - besides giving that city its water works and fair grounds. The following story embodies the facts, which authenticates the account as given by The Gazetti

The Story as Told by the Gazette.

A story was recently told a GAZETTE re porter by a young attorney of Fort Worth which shows one of three things: That the imagination of the young gentleman has been carefully schooled, so as to produce abnormal development; that his father, who figures in the narrative, was a man of wor derful descriptive powers, or that a young artist, then unknown to fame, but who has since acquired it, was endowed with a faculty which borders on the impossible Th uity which borders on the impossible. The circumstances, as related, were, however, vouched for by him who told them, and happened in Richmond, Va., the native town of the attorney. They were as fol-

Some years since there died in Richmond a several times millionaire, who in con-trariety to men of this class was a philanthropist in every sense of the word. and this fact is stranger still when the circumstances surrounding his birth and his life becomes known. Most men it would have soured and hardened, caused them to turn against the world, and engendered the belief that every man's hand was against them. On the contrary, these circumstances had an opposite effect on the man in question, and when he had amassed a competency reaching up into the nillions, he turned his attention to illeviating the distress of whomsoever ar lied to him for aid. philanthropic deeds became notorious and endeared him to the whole section of country in which he lived. Severa colleges and eleemosynary institutions of his state were endowed by him in sums ranging from \$100,000 to \$500,000

Strange to say, the dispenser of all thes charities was nameless in the common a eptation of the term. That is, his mother was an outcast from the pale of and who his father was he never knew Notwithstanding the unfortunate circum-stance that constantly stared him in the face and the cloud thrown around his birth, for which he was shunned by companions of his own age, this man rose above then all, and by his invate manbood and the al ways honorable, upright, Christian manner of his living demanded and received the es-teem, respect and love of his neighbors. He lived to the age of fifty or more, and upon his death willed all of his vast prop rty, except some donations to servants and riends, to charitable institutions. Some ime after his death it occurred to one of the institutions which owed its prosperity most fitting adornment for the walls of its library, but this seemed impossible, as the dead lover of his fellowmen had left no picture by which his likeness could be landed down. The father of the young Fort Worth attorney, who is responsible for this narrative, was a friend to the dead man from his boyhood till his death, and was much in his company. He accordingly expressed the belief that if the services of a certain young artist in Richmond, who was a verl table genius in his chosen vocation, could be secured, he would be able to give such a lescription of the painter as would enable him to reproduce the features of the dead man. The artist, whose name was Fisher, was accordingly sent for, and he and the

gentleman in question set about their task. The artist under the direction of the attorney's father, made changes and alteraions in the features till the face was said to be an exact counterpart of that of the man for whom it was intended. The feat was published in the local papers, and afterwards served to make the Ten years afterward the body of the phil anthrophist, which had been interred in metallic, air-tight coffin, was exhumed and was in a perfect state of preservation. The portrait was place alongside the face of the body which had been exhumed, and every

feature of the portrait corresponded exactly with those of the dead man. Whether this story is true or not is not vouched for by THE GAZETTE.

The Artist's Verification

My attention was called a few days since by Dr. Terrell of Lynchburg to an article in your paper of September 7, giving a brief but inaccurate history of a full-length por-trait painted by myself of the late Samuel Miller, which now adorns the walls of the emale orphan asylum founded by him at

The article in question contains some inaccuracies. After reading it I concluded to write you a correct history of what I claim to be in some respects one of the most re-markable portsaits in the world. I will be as brief as possible, and ask that you pub-lish my statements.

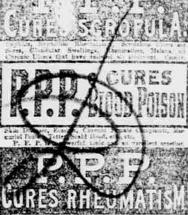
The years of 1867 and 1868 were spent by me professionally in painting portraits for different families in Lynchburg. While there, Mr. Miller had me to call at three different times to see him in regard to my painting a view of the mountain landscape as seen from his front piazza. I was after-wards engaged in Tennessee and other places, and lastly in Richmond, Va. In the meantime Mr. Miller had died. It was durSore Throat Lameness Sore Eyes Soreness Cata **Female** Complaints

AND ALL Inflammation Sold only in our own bottles. All druggues. POND'S EXTRACT CO., 76 5th Ave., N.Y.

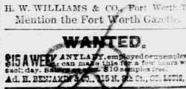








LIPPMAN EROS., Proprietor points. Linnman's Block, SAVANNA



ing my stay in Richmond that me to attempt to features of Mr. Miller, and on canvass. I hesitated for seven as it had been seven years since Mr. Miller. Many old faces mind, and it was impossible for me to be termine which of these was Mr. Miler's face. Finally I told Gen. McDonald that would go to Lynchburg, to Mr. Miller's the home, among his old friends and see what could be done. After talking with many of his friends, I finally determined to see the into the country to Dr. Terrell's home. He was Mr. Miller's physician, and a near

neighbor for many years. In the quiet of the country in sight of his home, and with talks and criticis the doctor, I began my task to be his face to my memory and transcanvas. At first I met with disments from the doctor, as he view thing impossible. But undating I had determined to do. I set t an old face in my memory, it to be the face of Dr. M. and studied hard for several d encouragement, finally of fourth day the doctor left sick and did not return until ne-Left to myself, I studied and all day and until near midniback a lost face in memory. tired when there was a rap at a was the doctor, who wished had been doing. Lighting placing my day's work before that I was right; that the ob saw through memory was the Samuel Miller. I could not feelings on hearing this. I fel the battle was won and that ceed in what I had undertake its details until finally it was by the doctor a perfect likeness sure of it he said he would send overseer, telling him he wished on business. The doctor aske his office, where the picture posite him, and the moment ward his eves rested on the exclaimed: "Lors, if there ain ter." The doctor asked if nose, mouth, etc., were like He answered, "Yes; it is all

criticism. I inclose with this a testimonials of those who were mately acquainted or associate in business matters. After portrait I got permission to one and look once more at the fac Miller as he lay in his coffin. H. were still preserved. So true was the ness of the portrait that I never chang line nor touched a pencil to the fund after

This is a true history of what I claim to be one of the most remarkable portrails the world. And the little orphas girls all the years to come can walk into the room and see their old benefactor's face. A face once lost in death, but brought had respectfully. F. L. FISHER, Artist, respectfully,

looks exactly like old marster wards exhibited it to his old fr

city of Lynchburg with not